United States Patent

[11] 3,580,571

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Division of Ser. No. 587,455, Oct. 18, 1966, abandoned.
[45] Patented **May 25, 1971**

[73] Assignee **Blazon, Inc.**
Jamestown, Pa.

[54] **CHAIN SWING**
3 Claims, 23 Drawing Figs.

[52] **U.S. Cl.** **272/85,** 297/245, 297/273
[51] **Int. Cl.** **A63f 7/06,** A47c 15/00, A47d 13/10
[50] **Field of Search** 272/85, 92, 40, 41; 297/245, 273

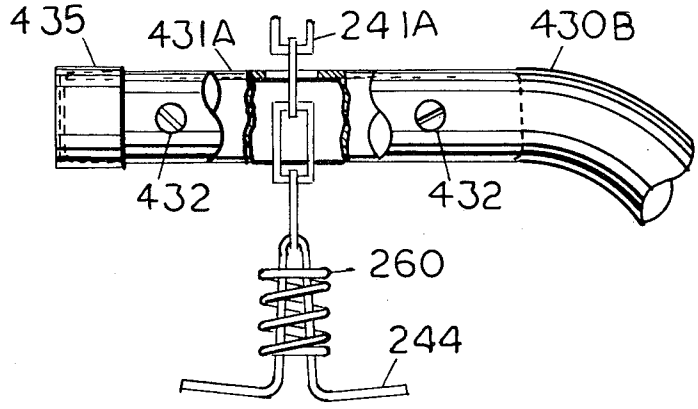
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Primary Examiner—Richard C. Pinkham
Assistant Examiner—Theatrice Brown
Attorneys—George B. Oujevolk and Constantine A. Michalos

ABSTRACT: A chain swing for an outdoor amusement device having four chains supporting a bar, curved seats which are held apart by spacebars and held fast to the chains by spring pin arrangements, the spring pin arrangements including springs interposed between the bottom of the spacebar and extensions or wings of the spring pin arrangement for resilient cushioning of said seats.



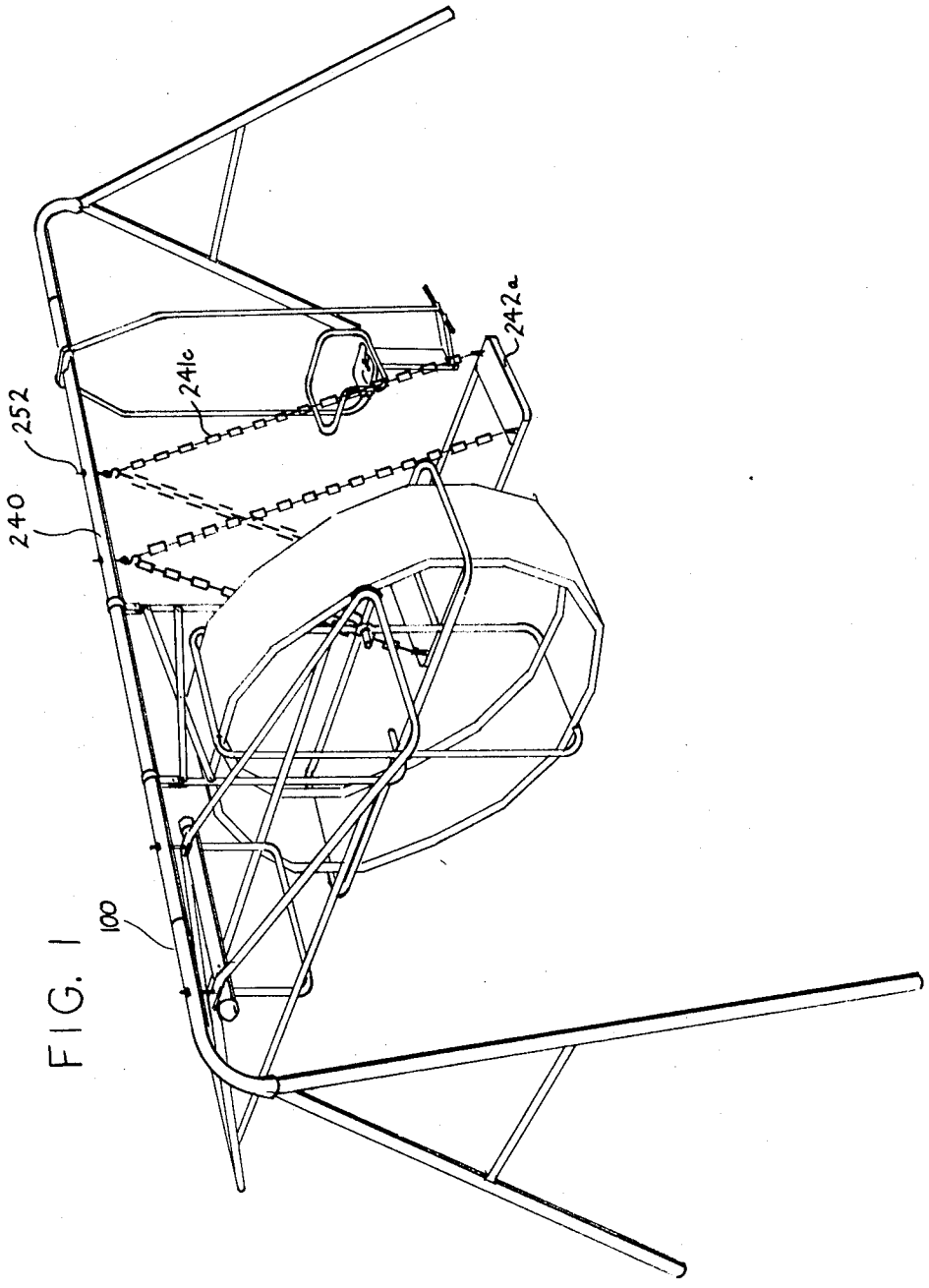
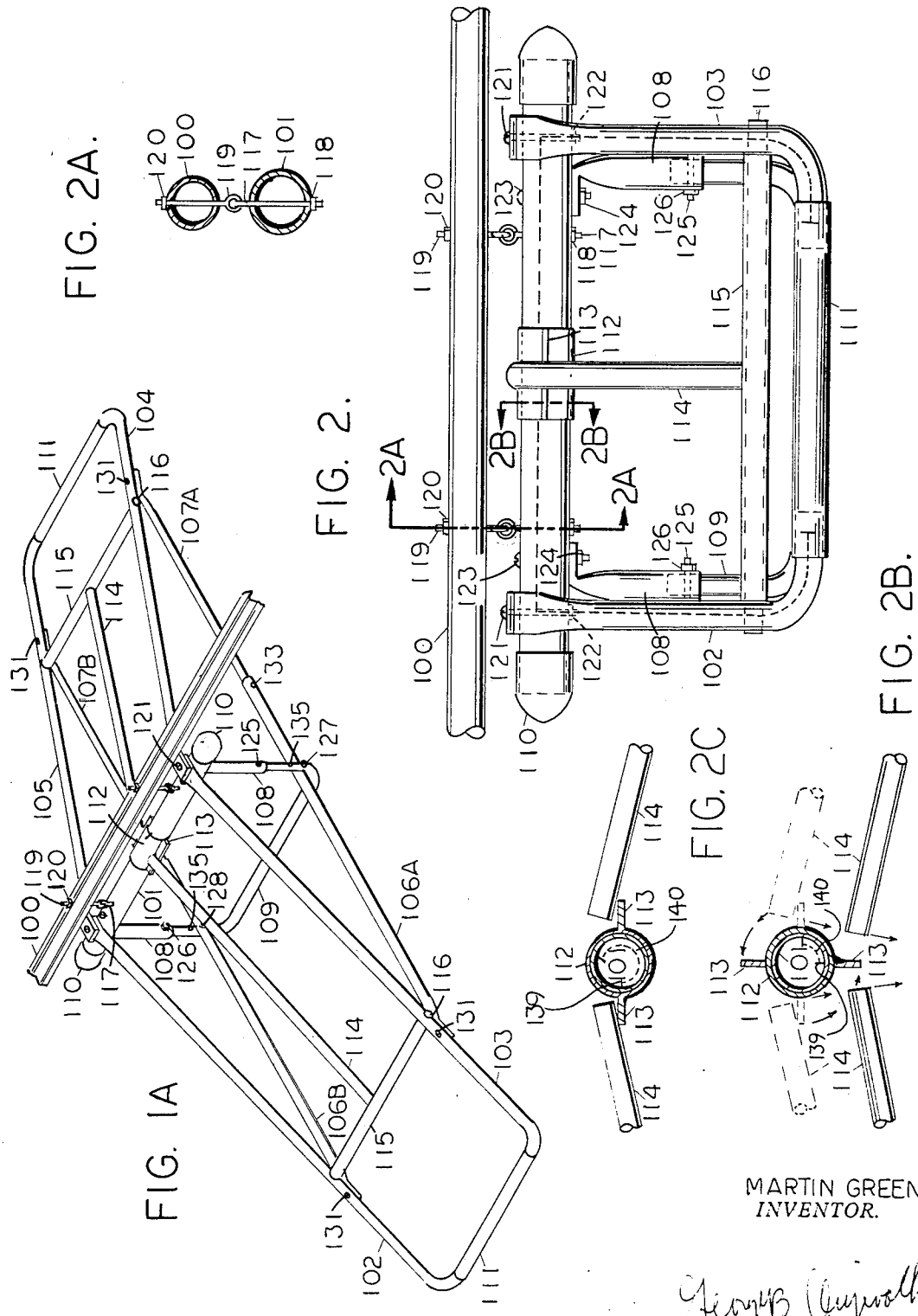


FIG. 1

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FIG. 1A
FIG. 2A.
FIG. 2.
FIG. 2B.
FIG. 2C
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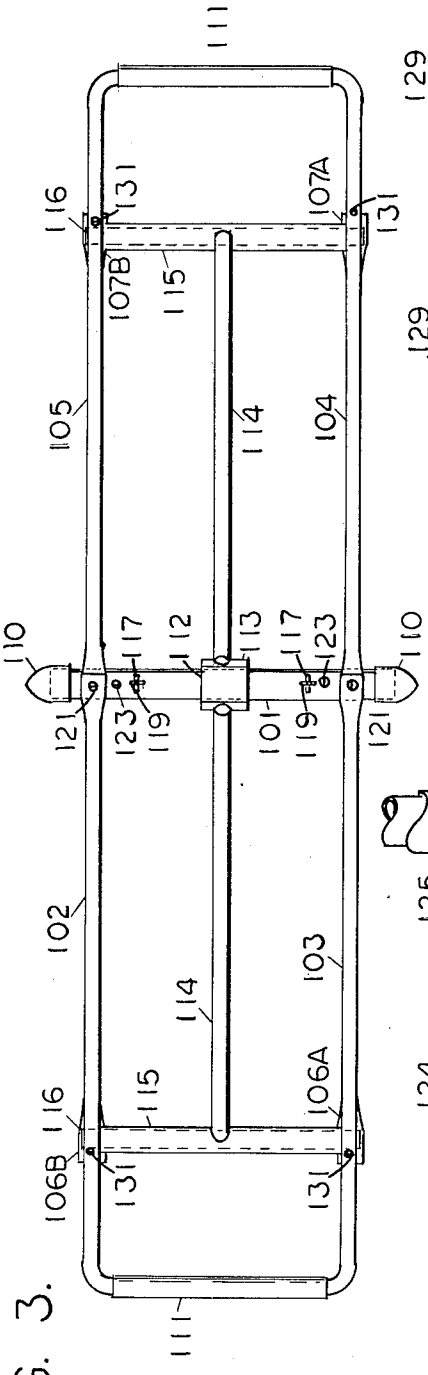


FIG. 3.

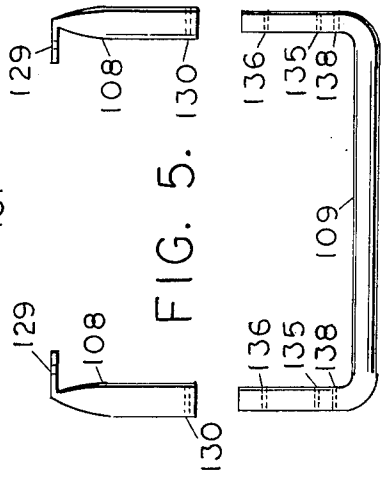


FIG. 5.

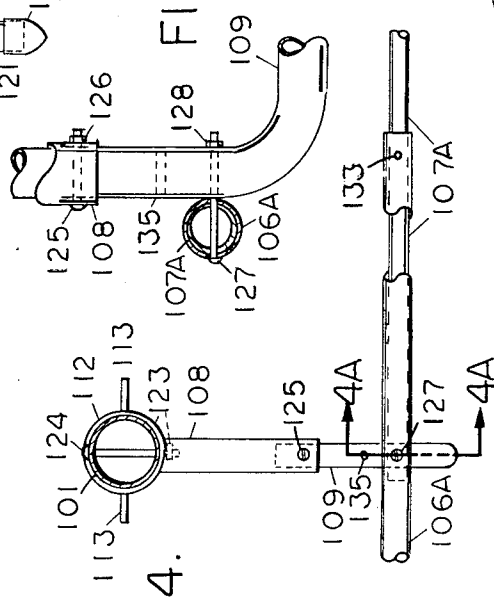


FIG. 4.

FIG. 4A.

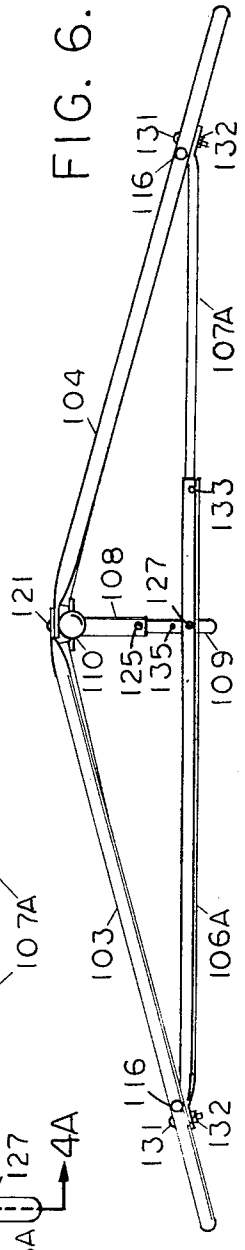


FIG. 6.

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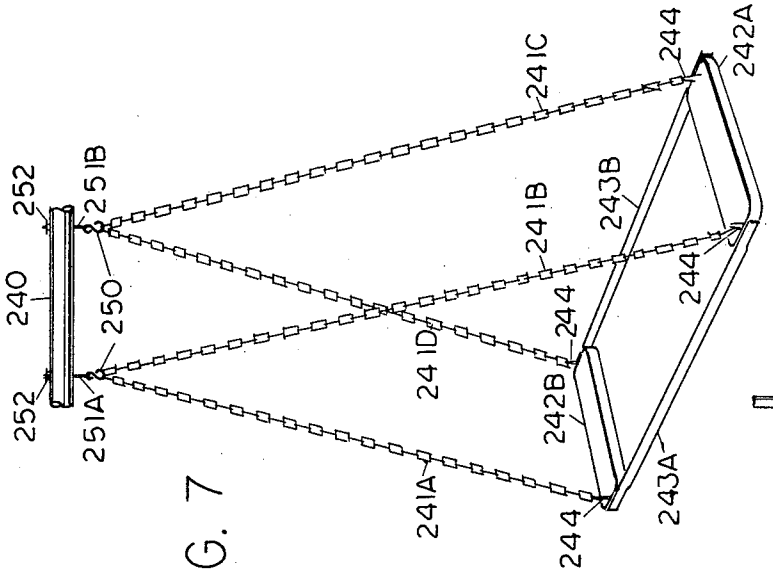


FIG. 7

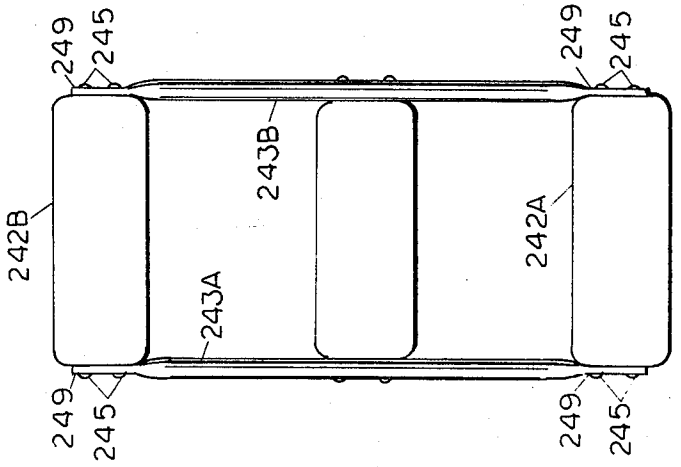


FIG. 8

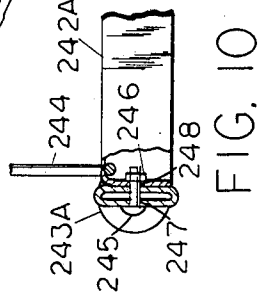


FIG. 10

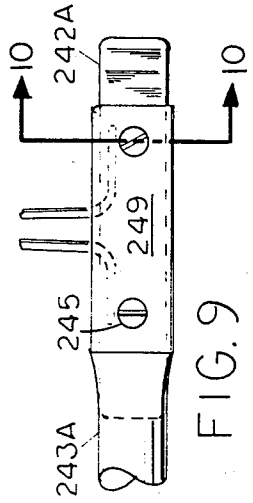


FIG. 9

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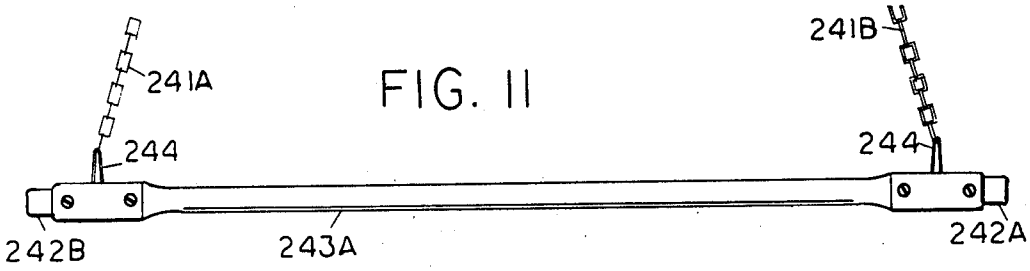


FIG. 11

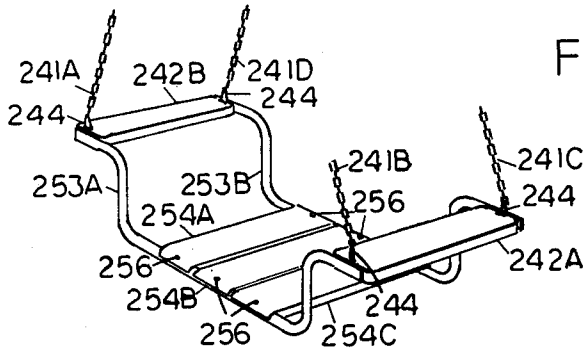


FIG. 12

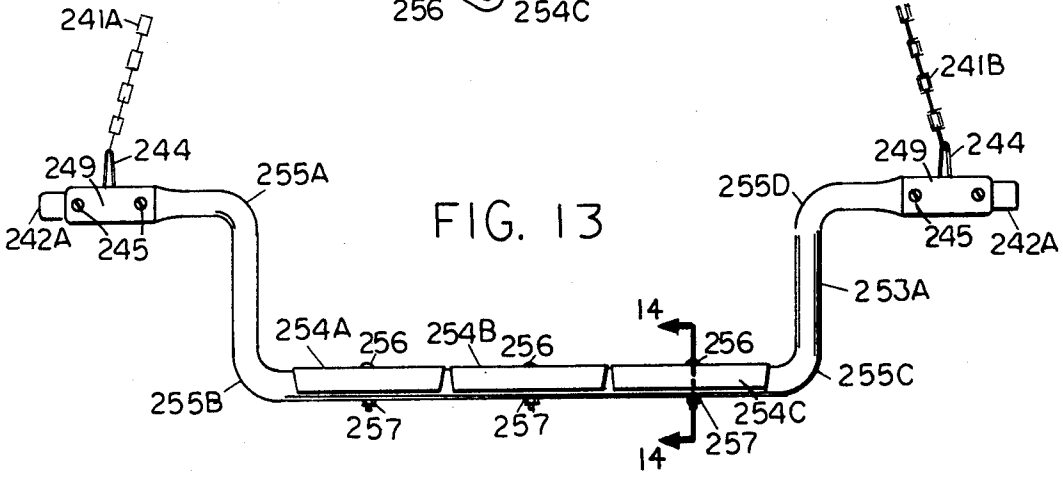


FIG. 13

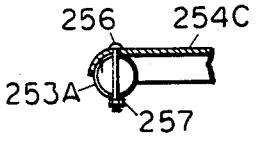


FIG. 14

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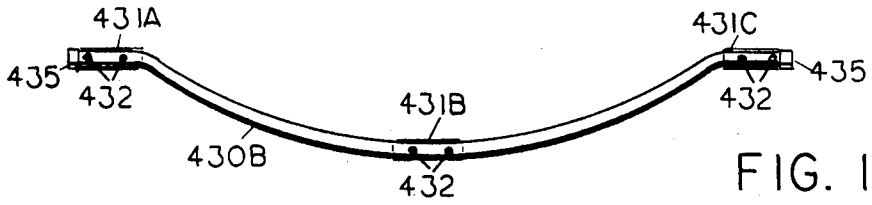


FIG. 17.

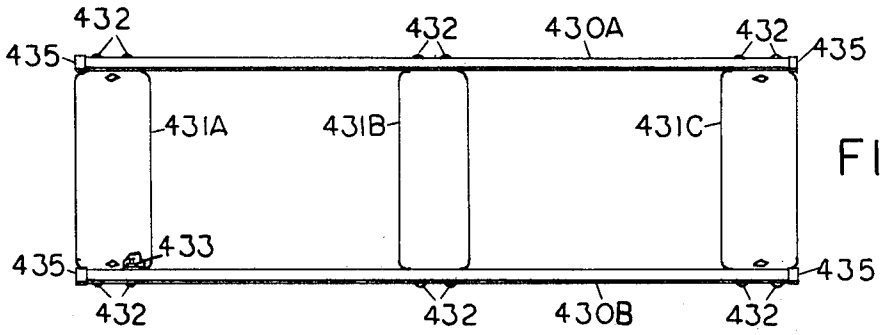


FIG. 16

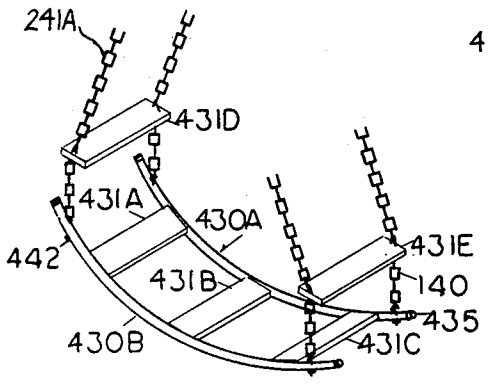
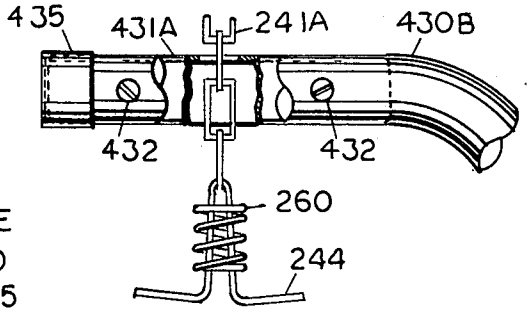


FIG. 15

FIG. 18.



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CHAIN SWING

The present invention relates to outdoor amusement devices and more particularly to devices which can form part of an outdoor gym set.

One type of outdoor device which is very popular is a trapeze, but unfortunately, this device may be dangerous since two children work together on the trapeze, and if one child lets go, the other child will fall a considerable distance. Another type of device which is very popular is a swing, but the trouble with most swings is that young children always want the parents to push them. Parents on the other hand have other ideas on the subject and much prefer some device where the child does not have to be pushed.

Therefore, the primary object of the present invention is to provide an arrangement which will include both a safe trapeze as well as a swing where a child does not have to be pushed.

Generally speaking the present invention contemplates an outdoor gym set with a trapeze and swing. There is a frame to support the trapeze and swing including a main cylinder with a trapeze section and a swing section. A trapeze main bar is affixed to the trapeze section; pairs of spaced arms extend at right angles from the main bar, one pair on each side thereof. Support tubes hold opposed arms. Vertical support tubes depending from the main bar hold a U-shaped tube at the ends thereof which acts as a support for the support tubes. Rotatable trapeze safety tubes are held by the outer ends of the pairs of arms. The safety arrangement comprises a cross tube held by the arms and support tubes, and a safety bar extending from the cross tube; a safety cylinder rotatably mounted on the main bar having a pair of opposite wings which, in one position will engage the safety bar, and in other positions will not engage the safety bar and having spring means biasing the wings in the engaging position. Chain means extend from the trapeze safety tubes to the safety cylinder so that when a child rotates the safety tube, this action will free the safety bar from the wings but if the child lets go, the wings will stop the trapeze from falling. Also, pairs of spaced chains extend from the swing section. Space bars are horizontally affixed to the outer ends of each pair of chains and at least two seats extend across the outer ends of the space bars.

The invention as well as other objects and advantages thereof will become more apparent from the following detailed description when taken together with the accompanying drawing, in which:

FIG. 1 presents an outdoor amusement gym set in perspective wherein the devices herein described are used in various sections thereof;

FIG. 1A illustrates in perspective one of the devices herein contemplated;

FIG. 2 shows a front view of the device shown in FIG. 1A;

FIG. 2A shows a sectional view along lines 2A–2A of FIG. 2;

FIG. 2B shows a sectional view along the lines 2B–2B of FIG. 2;

FIG. 2C shows a view similar to FIG. 2B but at a different time;

FIG. 3 provides a top view of the device shown in FIG. 1A;

FIG. 4 depicts an inner upper view of the device shown in FIG. 1A;

FIG. 4A depicts an inner lower view of the device shown in FIG. 1A;

FIG. 5 shows an assembly view of some of the components shown in FIG. 4 and 4A;

FIG. 6 presents a side view of the device shown in FIG. 1A;

FIG. 7 shows in perspective another device used on an outdoor amusement gym;

FIG. 8 is a top view of a modified version of the device shown in FIG. 7;

FIG. 9 shows partly in perspective a portion of the device shown in FIG. 7;

FIG. 10 shows partly in section a view along lines 10–10 of FIG. 9;

FIG. 11 presents a side view of the device shown in FIG. 7;

FIG. 12 illustrates in perspective a modified version of the device shown in FIG. 7;

FIG. 13 is a side view of the device shown in FIG. 12;

FIG. 14 is a cross-sectional view along lines 14–14 of FIG. 13;

FIG. 15 is a perspective view of still another modified version of the device shown in FIG. 7;

FIG. 16 is a top view of another version of the device shown in FIG. 15;

FIG. 17 is a side view of the device shown in FIG. 16; and,

FIG. 18 is a partly sectional view of some of the constructional features of the device shown in FIG. 17.

The devices herein described are mounted on an outdoor gym structure which includes a main horizontal cylinder. The trapeze set contemplated herein is mounted at one cylindrical section 100 of the cylinder and includes a horizontal main bar 101 disposed parallel to cylinder section 100. Extending from main bar 101 are arms 102 to 105 at right angles to main bar 101 but the arms on opposite sides of the main bar are at an angle defined by telescope support tubes 106A, 106B and 107A, 107B. As can be seen, these support tubes telescope one into the other and are designed to reinforce the trapeze. Depending vertically from main bar 101 are vertical support tubes 108 which hold U-Shaped tube 109. This in turn supports support tubes 106A, 106B; 107A, 107B. To round out the appearance of the device, and caps 110 are used on the main bar 101. Arms 102 to 105 extend outwardly to trapeze safety tube 111. Also, rotatably mounted on main bar 101 is safety cylinder 112 with wings 113, the action of these wings being more vividly shown in FIGS. 2B and 2C. Extending to the safety cylinder 112 is a safety bar 114 maintained by safety cross cylinder 115. Safety cross cylinder 115 is fixed to arms 102 and 103 while the corresponding safety cross cylinder on the other side is fixed to arms 104 and 105 by means of an inner bar 116.

Main bar 101 is mounted to horizontal cylindrical section 100 by an arrangement having a hook 117 at one end and a threaded lug 118 passing through main bar 101. This hook and threaded lug engages a similar member wherein the hook end 119 engages hook 117 while the threaded lug 120 passes through horizontal cylindrical section 100. Arms 102 to 105 are held by screws 121 with nuts 122 to main bar 101. The vertical support tubes 108 include a bent end and are likewise held to the main bar by screws 123 and nuts 124, while U-shaped tube 109 is similarly held to support tube 108 by screws 125 and nuts 126. Telescoping support tubes 106A and 107A are held to vertical support tube 108 by bolt 127 and nut 128. The telescope support tubes 106A, 106B; 107A, 107B are likewise held by bolt and nut arrangements 131, 132. Appropriate apertures are provided for these bolts in the various elements 129, 130, 133, 135, 136, 138.

As already mentioned, trapeze safety tubes 111 are mounted on extensions of arms 102 to 105 and can rotate on these arm extensions. Extending from inside the trapeze safety tubes 111 are chains 139 which extend to safety cylinder 112 which has spring means 140. Normally, the spring means 140 keep the wings 113 in the vertical position as shown in FIG. 2B. This locks the trapeze and the trapeze will not readily swing. When a child grabs trapeze safety tube 111 and rotates it, chain 139 will pull against spring 140. This will turn the wings 113 releasing safety bar 114. If a child lets go, spring 140 pulls wings 113 back to the vertical position and locks the trapeze.

The chain swing contemplated herein also forms part of the outdoor amusement device and extends from another cylindrical section 240. The chain swing extending from section 240 has four chains 241A to 241D of equal length. At the lower end, these chains support seats 242A, 242B which are held apart by spacebars 243A, 243B, and held fast to the chain by spring pin arrangements 244. These spring pins arrangements, including besides the pin, a bolt 245, nut 246 passing through apertures 247, 248 and a fastening member 249. At the upper end, chains 241A and 241B are fastened to a bolt 251A while chains 241C and 241D are fastened to a bolt 251B. At the end

of the respective bolts 251A and 251B are hooks 250. These bolts are in turn held to master bar 240 by nuts 252. An extra seat or reinforcing member 242C may be added at the center of spacebars 243A, 243B.

A sort of lawn swing sensation can be given using bent spacebars 253A, 253B, i.e., the spacebars are in a winged U-shape. Footrests 254A, 254B, 254C can then be provided which are held by a bolt 256 and nut 257.

Instead of a bent spacebar 253A, 253B, a curved spacebar 430A, 430B may be used. There can then be two end seats 431A and 431C with a center step 431B in between. The seats and steps are held by bolts 432 and nuts 433. The spacebar can have a decorative end piece 435. Additional seats or steps 431D, 431E are also possible. A certain amount of resilience can be obtained using inner springs 260 in spring pin arrangement 244. The springs are placed within the spacebars 430B when the pin arrangement 244 enters the spacebars, i.e., spring pin arrangement 244 includes a pin portion with a spring coiled thereon and a wing portion which holds the pin portion and chain from under the spacebar.

Although the present invention has been described in conjunction with preferred embodiments, it is to be understood that modifications and variations may be resorted to without departing from the spirit and scope of the invention as those skilled in the art will readily understand. Such modifications and variations are considered to be within the purview and

scope of the invention and appended claims.

I claim:

1. An outdoor gym set with a swing, comprising in combination; a frame to support the swing including a main cylinder with a swing section; pairs of space chains extending from said swing section; hollow spacebars horizontally affixed to the outer ends of each pair of chains and at least two seats, each seat extending across the outer ends of the spacebars, the ends of each spacebar having upper and lower vertically spaced apertures therethrough, each of said chains being attached to the ends of the spacebars by a winged pin and a coiled spring, each said winged pin having a winged portion and a pin portion, each said coiled spring being vertically placed within a said hollow spacebar and having its vertical axis in registry with the center of said upper and lower apertures and having its upper end abutting the inner surface of the spacebar adjacent said upper aperture, and its lower end abutting said winged portion of a said winged pin.

2. A device as claimed in claim 1, wherein the spacebars have a winged U-shape, seats being placed across the ends thereof with a footrest at the center thereof.

3. A device as claimed in claim 2 wherein the spacebars are curved, with seats across the outer ends thereof and a footrest at the center thereof.